Particles and State Changes

How does energy play a role in changes of state?

Describe melting at the particle level.

How does the strength of the forces between particles relate it the substances melting and boiling points?

Describe boiling at the particle level.

What is the difference between boiling and evaporation?

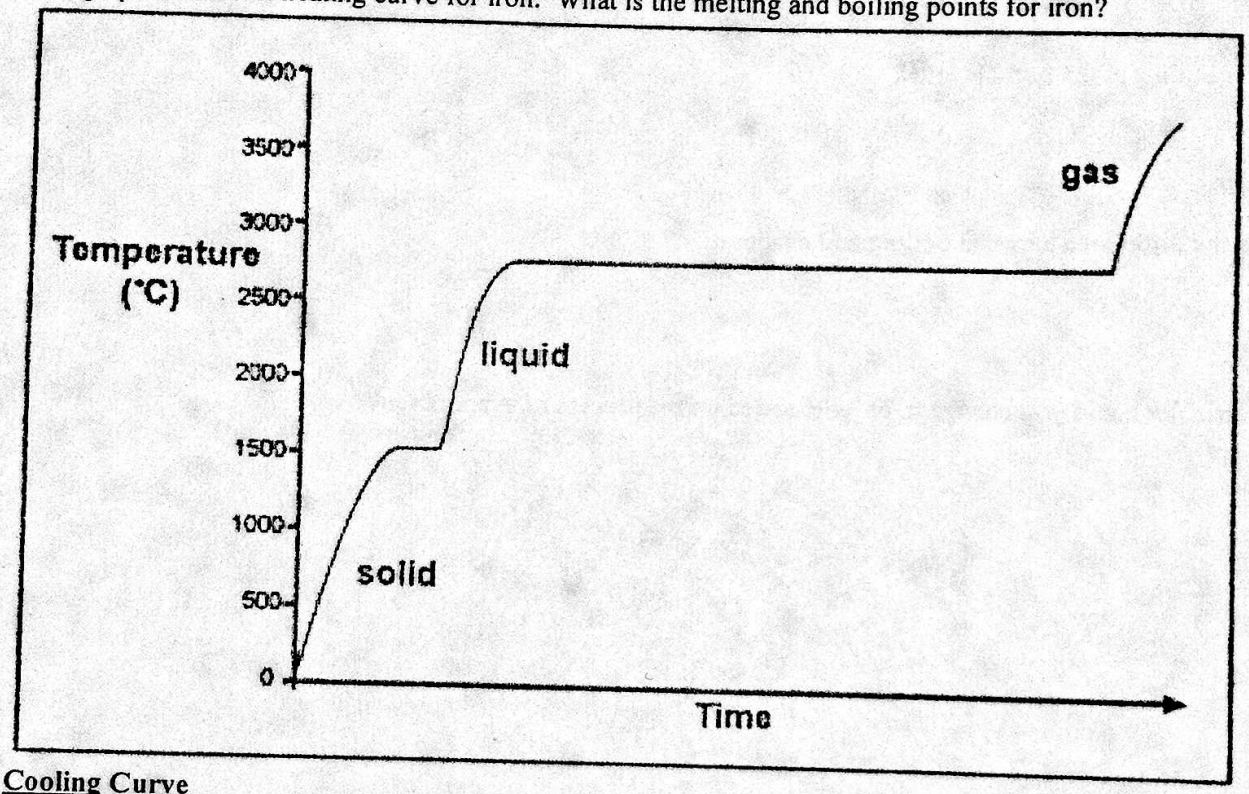
What variables could you change in order to speed up the process of evaporation?

When heating water the temperature does not increase steadily, but has two places where the line flattens out. What is happening at these locations?

How is the energy going into the system (beaker with H_2O) affecting water molecules during the flat line portions of the graph?

Starting at time = 0 and working your way up the line, what is significant about the first flat portion on the graph and the second flat portion of the graph?

The graph below is a heating curve for iron. What is the melting and boiling points for iron?



Cooling Curve

What similarities and differences are there between a heating curve and a cooling curve?